

Mineral Industry Surveys

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LEAD IN DECEMBER 2004

Domestic mine production, based on the net quantity of lead recovered from concentrate, was 31,800 metric tons (t) in December, according to the U.S. Geological Survey. This was a decrease of about 9% percent compared with that of November. Preliminary 2004 data for mine production was 429,000 t, down by 4% compared with production in 2003. Secondary refinery production (95,400 t) increased by less than 1% in December, and reported consumption (113,000 t) was down about 1% from that of the previous month. Preliminary 2004 data for secondary refinery production was about 1% lower compared with production for 2003, and reported consumption rose by a little over 1% for the same period.

According to the Platts Metals Week published quotations, the average North American producer price increased to 60.73 cents per pound in December, a less than 0.1% move from that of the previous month. The average London Metal Exchange Ltd. (LME) cash price increased to \$974.39 per metric ton, a little less than a 1% increase compared with the November price. These are significantly higher prices compared with December 2003 averages, up about 37% and 41%, respectively. The LME December prices ranged from a low of \$943.00 per metric ton (December 9) to a high of \$1,056.00 per metric ton (December 31); in December, the lead prices traded above \$1,000 only the one day. For the month of December, LME lead stocks dropped by 2,425 t to 40,475 t.

At yearend, U.S. producers were reluctant to over sell lead as there was no foreseeable source to fill unexpected gaps in production. Anticipated increases in domestic mine production in 2005 are not expected to become available as refined metal because additional concentrates were expected to be exported to Asia. The European market anticipated an increase in consumer demand in 2005 (CRU International Ltd., 2005a). In China, sustained high lead prices decreased slightly, averaging \$1,137 per ton in December. Actual settlement prices, a market source disclosed, were more in the range of \$1,015 to \$1,027 per t (Antaike, 2005).

Chinese production of refined lead metal for the first 11 months of 2004 was 1.59 million metric tons, up 9.3% year-on-year. At the same time, mine production of lead concentrate was down by 3.2% year-on-year (538,000 t for 11 months),

indicating China's primary lead industry was becoming more dependent on imports of lead concentrates. November imports of lead concentrate were 109,000 t, the largest monthly total in 2004, and for the January to November period imports were 772,000 t, up 27.2% on a yearly basis (Antaike, 2005).

The Indian economy averaged 5.5% growth from 2000 to 2003, and the expected final figure for 2004 and forecasted 2005 was over 7%. In 2004, Indian lead production was 35,000 t primary and 23,000 t secondary. With lead demand for 2004 at approximately 150,000 t, the shortfall was filled by increased imports. The major suppliers of this imported lead were China, the Republic of Korea, and Australia; 54%, 15%, and 10%, respectively, according to the latest full-year figures (2003) (CRU International Ltd., 2005a).

A Peruvian Government decree issued December 29, 2004, would allow Doe Run Peru to continue operating its La Oroya smelter in Peru while seeking an extension to its environmental operating agreement. Doe Run has already spent \$135 million, exceeding the original 1997 environmental investment agreement of \$107 million (CRU International Ltd., 2005b; Platts Metal Week, 2005).

Sorus Fund Management controls approximately 6.3% of Exide Technology's stock, which brought to three the number of large investment funds to purchase 5% or more of the company's stock. This stock purchasing activity ran the stock price up to nearly \$13, and was fueling speculation about a break-up of Exide (Ryan's Notes, 2004a-c).

Ivornia, Inc. of Toronto, Ontario, announced that development work at the Magellan Mine in Western Australia had exposed ore and that construction had been completed on their lead processing facilities. The project was on schedule for the commissioning of the plant in January (Platts Metal Week, 2004).

The National Defense Stockpile aggregated cash disposal (sale) of lead in December, under the monthly Basic Ordering Agreement DLA-Lead-005, was 3,860 t (2,050 short tons) for an approximate value of \$1.9 million (Defense National Stockpile Center, 2004).

References Cited

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- Platts Metals Week, 2005, Doe Run to seek environmental extension: Platts Metals Week, v. 76, no. 1, January 3, p. 9.
- Ryan's Notes, 2004a, Exide no longer tolling for JCI: Ryan's Notes, v. 10, no. 50, December 13, p. 6.
- Ryan's Notes, 2004b, There were more indications: Ryan's Notes, v. 10, no. 49, December 6, p. 4-5.
- Ryan's Notes, 2004c, Tough times for lead users: Ryan's Notes, v. 10, no. 52, December 27, p. 4.

TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES¹

(Metric tons, lead content, unless otherwise specified)

	2003		2004		
	Year	January - December	November	December	January - December
Production:					
Mine (recoverable)	449,000	449,000	35,000 ^r	31,800	429,000 ^r
Primary refinery	245,000	245,000	NA	NA	NA
Secondary refinery:					
Reported by smelters/refineries	1,140,000	1,140,000 ^r	92,700	93,200	1,120,000
Estimated	--	-- ^r	936	942	21,400
Recovered from copper-base scrap ^c	11,400	11,400	1,250	1,250	15,000
Total secondary	1,150,000	1,150,000 ^r	94,900	95,400	1,140,000
Stocks, end of period:					
Primary refineries	NA	NA	NA	NA	NA
Secondary smelters and consumers	107,000	107,000 ^r	65,600	66,100	66,100
Imports for consumption:					
Base bullion	6	6	--	NA	3 ²
Refined metal	175,000	175,000	20,200	NA	177,000 ²
Consumption:					
Reported	1,390,000	1,390,000 ^r	114,000 ^r	113,000	1,370,000
Undistributed ^c	--	-- ^r	3,510 ^r	3,490	42,300
Total	1,390,000	1,390,000 ^r	117,000 ^r	119,000	1,410,000
Exports:					
Ore and concentrate	253,000	253,000	13,100	NA	279,000 ²
Bullion	593	593	113	NA	222 ²
Wrought and unwrought lead	123,000	123,000	6,390	NA	76,700 ²
TEL/TML preparations, based on lead compounds	517	517	22	NA	625 ²
Exports (gross weight): Scrap	92,800	92,800	5,140	NA	51,100 ²
Platts Metals Week North American producer price (cents per pound)	43.76	43.76	60.70	60.73	55.14

^cEstimated. ^rRevised. NA Not available. -- Zero.

¹Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

²Includes data for January - November only; December data were not available at time of publication.

TABLE 2
MONTHLY AVERAGE LEAD PRICES

	North American producer price cents/lb	LME		Sterling exchange rate dollars/£
		\$/metric ton	£/metric ton	
2003:				
December	44.30	691.69	394.89	1.751605
Year	43.76	514.62	313.88	1.634750
2004:				
October	60.60	931.91	515.39	1.808175
November	60.70	967.26	519.84	1.860680
December	60.73	974.39	505.22	1.928639

Source: Platts Metals Week.

TABLE 3
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP¹

(Metric tons, gross weight)

Item	Stocks November 30, 2004	Net receipts	Consumption	Stocks December 31, 2004
Battery-lead	12,100	97,000	97,000	12,200
Soft lead	W	W	W	W
Drosses and residues	1,820	1,440	1,440	1,830
Other ²	1,230	1,770	1,640	1,360
Total	15,200	100,000	100,000	15,400
Percent change from preceding month	XX	+0.3	+0.2	+1.3

W Withheld to avoid disclosing company proprietary data; included with "Other." XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes solder, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap not elsewhere classified.

TABLE 4
LEAD, TIN, AND ANTIMONY RECOVERED FROM
LEAD-BASE SCRAP IN DECEMBER 2004¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	68,200	--	--
Remelt lead	W	W	W
Antimonial lead	24,600	W	W
Other ²	W	W	--
Total lead-base	93,200	44	378

W Withheld to avoid disclosing company proprietary data; included in "Total."

-- Zero.

¹Data are rounded to no more than three significant digits.

²Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 5
CONSUMPTION OF LEAD IN THE UNITED STATES¹

(Metric tons, lead content)

Use	2003		2004		
	Year	January - December ^r	November	December	January - December
Metal products:					
Ammunition, shot and bullets	48,800	48,800	3,850	2,960	51,000
Brass and bronze, billet and ingots	2,810	2,810	194	194	2,150
Cable covering, power and communication and cabling lead, building construction	4,790	4,790	317	416	4,270
Casting metals	31,700	31,700	2,780	2,780	33,400
Sheet lead, pipes, traps and other extruded products	25,900	25,900	1,990	2,110	24,000
Solder	6,310	6,310	112	66	1,460
Storage batteries, including oxides	1,170,000	1,170,000	97,300	97,200	1,170,000
Terne metal, type metal, and other metal products ²	23,200	23,200	1,260	1,260	15,400
Total metal products	1,310,000	1,310,000	108,000	107,000	1,300,000
Other oxides and miscellaneous	78,300	78,300	5,740	5,700	67,500
Total reported	1,390,000	1,390,000	114,000	113,000	1,370,000
Undistributed ^e	--	--	3,510	3,490	42,300
Grand total	1,390,000	1,390,000	117,000	116,000	1,410,000

^eEstimated. ^rRevised. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes lead consumed in foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

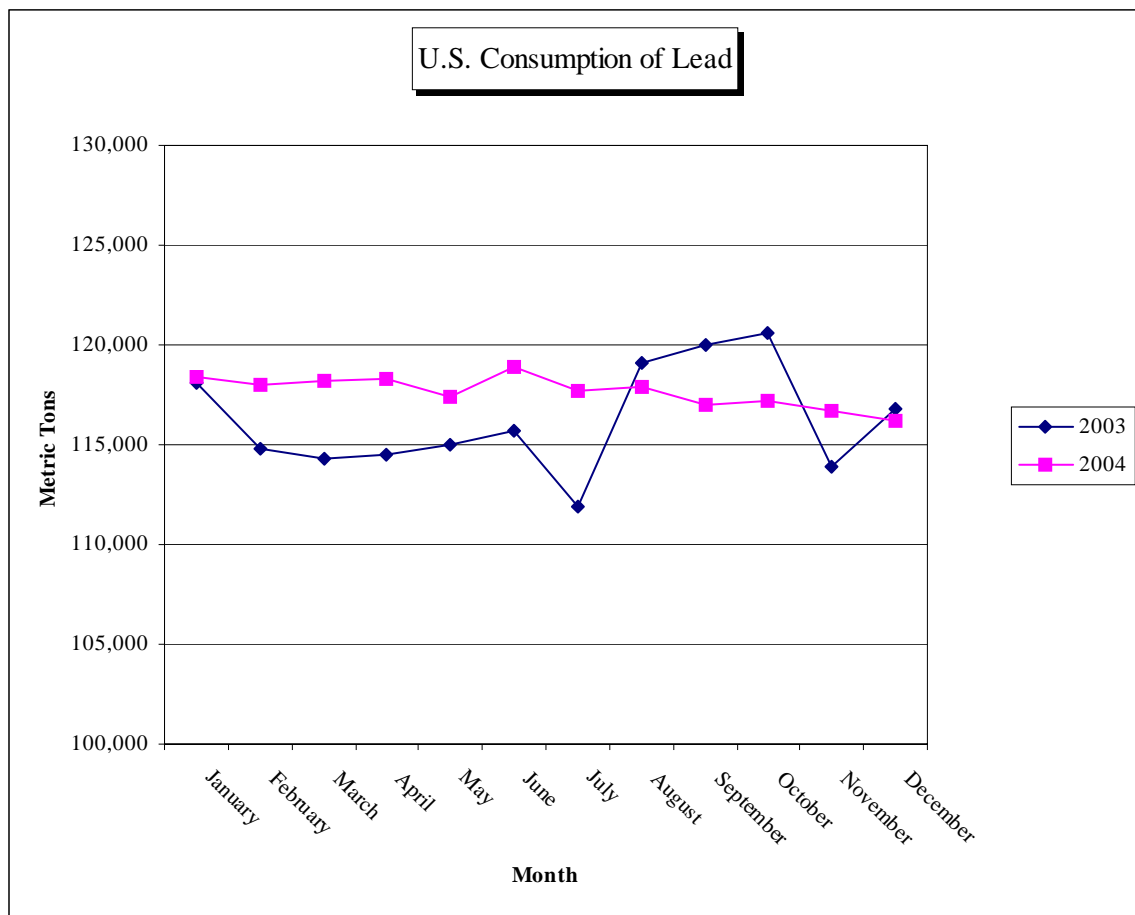


TABLE 6
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND
CONSUMPTION OF LEAD¹

(Metric tons, lead content)

Type of material	Stocks	Net receipts	Consumption	Stocks
	November 30, 2004			December 31, 2004
Soft lead	64,700 ^r	62,800	63,200	34,300
Antimonial lead	15,400 ^r	31,100	30,300	16,200
Lead alloys	W	19,000	19,000	W
Copper-base scrap	W	W	W	W
Total	65,700 ^r	113,000	113,000	66,100

^rRevised.

W Withheld to avoid disclosing company proprietary data; included in "Total."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 7
U.S. EXPORTS OF LEAD, BY CLASS¹

(Metric tons)

	2003		2004		
	Year	November	October	November	January - November
Lead content:					
Ore and concentrates	253,000	9,270	58,600	13,100	279,000
Bullion	593	9	40	113	222
Materials excluding scrap	123,000	4,760	5,650	6,390	76,700
TEL/TML preparations, based on lead compounds	517	10	20	22	625
Total	377,000	14,100	64,300	19,600	357,000
Gross weight: Scrap	92,800	5,520	4,700	5,140	51,100

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 8
U.S. IMPORTS OF LEAD BY TYPE OF MATERIAL AND BY COUNTRY OF ORIGIN¹

(Metric tons, lead content)

Type/Country	General imports					Imports for consumption				
	2003		2004			2003		2004		
	Year	January -	October	November	January -	Year	January -	October	November	January -
		November			November		November			November
Base bullion:										
Argentina	5	--	--	--	--	5	--	--	--	--
Germany	1	--	--	--	--	1	--	--	--	--
Mexico	--	3 ^r	--	--	3	--	3 ^r	--	--	3
Total	6	3 ^r	--	--	3	6	3 ^r	--	--	3
Pigs and bars:										
Australia	10,100	10,100	--	--	--	107	107	800	731	13,700
Canada	167,000	153,000	15,700	19,200	149,000	167,000	153,000	15,700	19,200	149,000
China	1	1	--	--	2	1	1			2
Germany	--	--	--	--	281	--	--	--	--	281
Mexico	8,270	8,060	225	248	8,480	8,270	8,060	225	248	8,480
Other	259	209	334	20	5,750	259	209	341	20	5,890
Total	186,000	172,000	16,300	19,400	163,000	175,000	162,000	17,100	20,200	177,000
Grand total	186,000	172,000	16,300	19,400	163,000	175,000	162,000	17,100	20,200	177,000

^rRevised. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.